

## REMARKS

Claims 1-9 were presented at the time of filing. Claims 1-6 were cancelled and rewritten and presented as new claims 10-13 in the Response to Restriction Requirement and Amendment filed November 13, 2006. Claims 7-13 are currently pending in the application with claims 11-13 withdrawn from consideration as being directed to a non-elected invention.

Rejection under 35 U.S.C. §101

Claims 7 and 10 are rejected under 35 U.S.C. §101 as being directed to non-statutory subject matter, specifically, the claimed polypeptides allegedly read on a product of nature. Accordingly, claims 7-10 are amended above to indicate the hand of the inventor, that is, the term “isolated” has been inserted in the claims to clarify that the claimed monoclonal antibody is not intended to encompass naturally occurring antibodies.

In view of the above amendment, withdrawal of the rejection under 35 U.S.C. §101 is respectfully requested.

Rejection Under 35 U.S.C. § 112, first paragraph

Claim 9 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement because, according to the Office Action, the specification does not appear to provide a repeatable method for obtaining deposits.

Enclosed herewith are copies of the International Forms confirming the deposit and viability of the “Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure.” Also enclosed is a statement of the undersigned attorney that all restrictions on the availability to the public of these monoclonal antibodies will be irrevocably removed upon the granting of a patent thereon.

Withdrawal of the rejection under 35 U.S.C. §112, first paragraph is respectfully requested.

Rejection under 35 U.S.C. § 102

Claims 1-2 and 16-17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Rapoport et al. U.S. Patent 6,747,139. According to the Office Action, Rapoport et al. disclose monoclonal antibodies against hTSH receptor which block hTSH and autoantibodies.

The claims are directed to monoclonal antibodies having the ability to block binding of TSH and/or autoantibodies to the TSH receptor. The monoclonal antibodies are further defined as those antibodies that bind to an epitope on the receptor having the amino acid sequence FDSH.

Rapoport et al. disclose the nucleotide and amino acid sequences for human TSH receptor. Disclosure of the FDSH (Phe Asp Ser His) sequence is inherent in the disclosure of the complete sequence of 764 amino acids. However, Rapoport does not disclose or suggest that there is any particular significance to the FDSH sequence.

Rapoport also discloses monoclonal antibodies directed to hTSH receptor, however, there is no evidence in Rapoport from which one of skill in the art would conclude that Rapoport ever made antibodies to any hTSH receptor epitope let alone any monoclonal antibodies which specifically bind to the FDSH sequence of TSH receptor.

Therefore, Rapoport does not teach or suggest the claimed monoclonal antibody. Withdrawal of the rejection under 35 U.S.C. §102 is respectfully requested.

Rejection under 35 U.S.C. § 103(a)

Claims 7-8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rapaport et al. (U.S. Patent No. 6,747,139), in view of Vanderbark et al. (U.S. Patent No. 5,614,192). The teachings of Rapoport are discussed above.

Vandenbark discloses T-cell receptor peptides and antibodies directed thereto. The teachings of Vandenmark do not compensate for the deficiencies in the teachings of Rapoport with respect to the significance of the FDSH sequence of the hTSH receptor. Accordingly, the combination of teachings of Rapoport and Vandenbark do not result in Applicants' claimed monoclonal antibodies.

In view of the above arguments, withdrawal of the rejection under 35 U.S.C. §103 is respectfully requested.

It is respectfully submitted that the above-identified application is now in a condition for allowance and favorable reconsideration and prompt allowance of these claims are respectfully requested. Should the Examiner believe that anything further is desirable in order to place the application in better condition for allowance, the Examiner is invited to contact Applicants' undersigned attorney at the telephone number listed below.

Respectfully submitted,

  
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Dated: July 6, 2007

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